Annual Catch Limits and Accountability Measures

Requirements of the Magnuson Stevens Fishery Conservation and Management Reauthorization Act (MSRA) of 2006 to Prevent Overfishing

Council Training

October 2007

The Challenge

- What: Annual Catch Limits and Measures to Ensure Accountability
- When: 2010 for overfishing stocks, 2011 for all others
- Performance measure: … such that overfishing does not occur

There's not a lot of wiggle room here -- no "to the extent practicable" language

What is an ACL?

- Limit on annual catch
- Set by Council (approved by SOC)
- Not to exceed fishing level recommendation of the Council's SSC or peer review process
  - Note: SSC is required to make recommendations on Acceptable Biological Catch, preventing overfishing, MSY, etc.

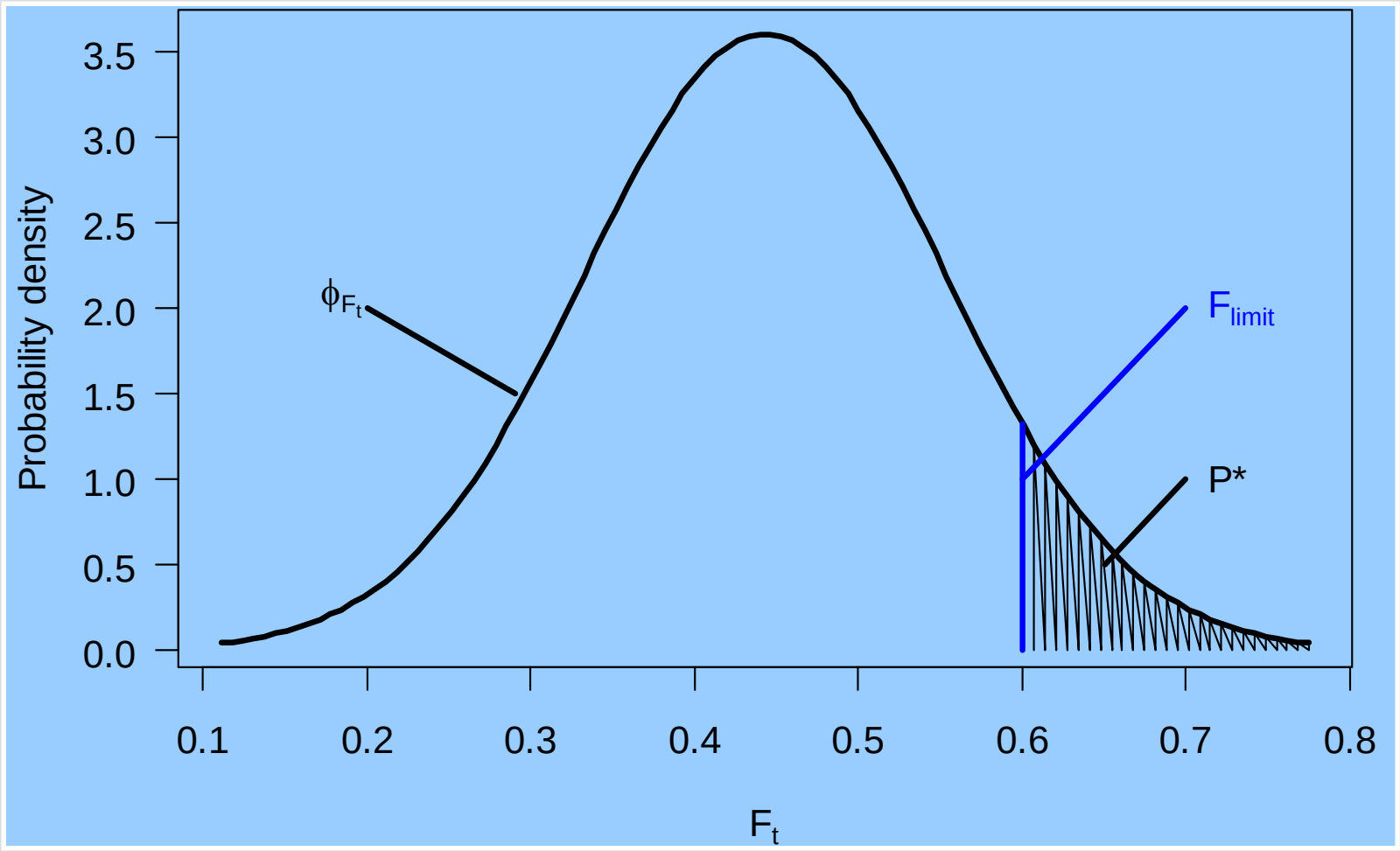
Current practices: TACs and TALs

- In many fisheries annual specification is made of Total Allowable Catch (TAC) or Total Allowable Landings (TAL)
- In some fisheries, TAC/TAL is set below the limit and the fishery is managed so that the TAC/TAL is not exceeded
- In other fisheries, TAC/TAL is set at the limit, but the fishery is not managed to prevent the TAC/TAL from being exceeded, so the limit is frequently exceeded

Dealing with uncertainty

- All estimates of stock parameters - such as Fmsy, biomass, overfishing level etc - have uncertainty.
- Therefore, an ACL established based on those parameters carries uncertainty in whether catch at the ACL level will result in overfishing.
- In addition, all fishery management approaches - IFQs, hard TACs, effort controls, etc - have uncertainty in their ability to control catch to the target level.

Probability that Catch at the Limit Results in Overfishing



Management Uncertainty

Actual Catch

Year 1

Year 2

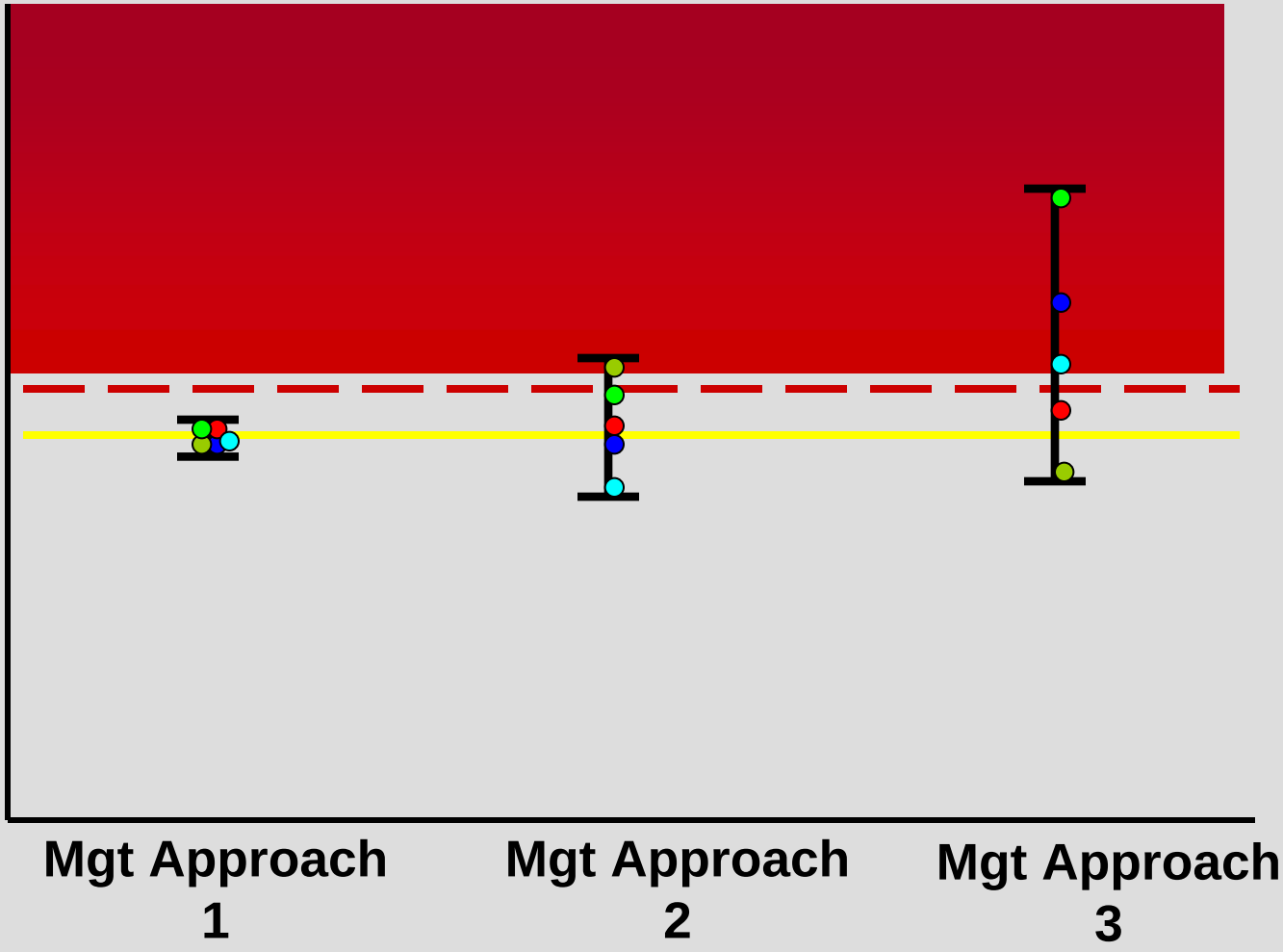
Year 3

Year 4

Year 5

ACL

ACT



Discussion Question 1

- If the ACL is set equal to the point estimate of Fmsy times the estimate of next year's biomass:
  - Catch = ACL would result in a 50% probability that overfishing occurred.
- ? Would this meet the new MSA standard for ACL/AM:
  - ***"…such that overfishing does not occur in the fishery…?"***

Target < Limit

- NS1 guidance since 1998 has been to set targets sufficiently below limits so that the limit would not be exceeded
- Technical guidance published in 1998 recommended setting targets so there was a minimum of 75% probability that the limit was not exceeded, rather than a 50% probability

Discussion Question 2

- Clearly, a 100% probability that the limit is not exceeded would meet the MSA standard "… *such that overfishing does not occur…,*" and there are fisheries with a combination of conservative targets and tight management controls that effectively meet that standard.
- ? Assuming that standard is not achievable in all fisheries, what probability (90%, 75%, etc) do you think could be argued to meet the requirement "… *such that overfishing does not occur…*"?

Management performance

- When an ACL is established with a certain probability that catch = ACL would not result in overfishing, that is half of the problem
- The other half is the ability of the fishery's management measures to constrain catch to the ACL level, because any catch above ACL increases the probability of overfishing beyond the acceptable level

Accountability measures

- The MSA requires “measures to ensure accountability” as part of the ACL system
- A key function of these accountability measures (AMs) is to correct problems in a fishery that caused ACL to be exceeded, so that the overages do not continue in future years
- FMPs should anticipate the possibility that the ACL will be exceeded, and set out what adjustments will be made to the fishery as a result.

Discussion Question 3

- Scenario:
  - A fishery is managed using input controls, such as days at sea.
  - The target catch for the fishery is set at 75% of the ACL.
  - The catch for a year exceeds the ACL by 20%.
- ? What accountability measures could be established in the FMP so that the overage was appropriately responded to in the fishery for next year?

Discussion Question 4

- Scenario:
  - A recreational fishery is managed using bag and size limits, and a 10 month season.
  - The target catch for the fishery is set at 75% of the ACL.
  - The catch for a year exceeds the ACL by 20%.
- ? What accountability measures could be established in the FMP so that the overage was appropriately responded to in the fishery for next year?

Discussion Question 5

- ? What do you see as the biggest challenges you will face in establishing ACLs and AMs in your fisheries?

The end